IMAGE

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OF THE GEORGE EASTMAN HOUSE

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FUTURE HISTORIANS AND THE PHOTOGRAPHIC ANNUALS

Future historians will look at our photographic annuals with, no doubt, consummate interest. And, if my own experience is any guide, give them the status of no little authority. We often feel that the current annuals are a little less representative than we might wish, less objective, less a cross-section than is desirable – we thought the same ten or fifteen years ago. But consider these annuals that are now ten or fifteen years old: when we have forgotten much, they take on a quite unexpected sense of authority.

With this change of value in mind, we feel an urge to point out to future historians (though doubtlessly they will be so well trained as to need no such prompting) some of the things we notice every year about our photographic annuals.

EDITORIAL

For one thing the dates are misleading. Because annuals go to press early in any year, the most recent photograph in them is at least a year old. For instance not a single photograph appearing in a 1957 annual could possibly have been made in 1957. A few could have been made early in 1956, the majority are made in 1955 or earlier. Fortunately this, contemporary annoyance, will not make much difference twenty or a hundred years from now.

When the editors take up trends (as now and then they do in prefaces) it might be well for the future historian to look at these predictions in the light of other aspects of the annuals. For one thing each annual seems to select about the same kind of work year after year from the sea of photographs that drown its editors every three hundred and sixty five days. For instance one annual consistently emphasizes a kind of sophistication that by comparison to another annual's emphasis on journalistic photographs is faintly feminine. While another annual picks its pictures as if wearing kid gloves, another confines its selections to the work of the gregarious camera club amateurs to the exclusion of the individualist artists. Such consistancy suggests that the predictions of trends are rather close to the personal wishes of the various editors. These preferences, can actually, be observed to have fostered, if not created, trends.

Another point is the word "great." Used to death, U. S. Camera, *this year, broke entrenched precedent in subtitling the 1957 annual merely, "the year's best pictures." We might remind tomorrow's historian that those of us alive in 1957 would find room for a diversity of opinion if we chose to vote, judge or otherwise make known what we think are the ten best photographs in any one annual, or the ten "great" in any one year's crop of annuals.*

MINOR WHITE

In The Nick of Time

D. W. Griffith and the "Last-Minute Rescue"

by George Pratt

THE REV. DR. STOCKTON was making quite a day of it in the moving picture theater. He saw seventeen reels of film through, then through again. He was not, however, a crack-pot movie fan. He was systematic in his viewing, and he had a Purpose.

He sat there in the dark watching the screen and meticulously recording the results of his study by means of a stop watch, a pocket counting machine, a flashlight and a notebook. This was in the month of July, 1912, in New York City. The heat did not deter him.

The day before, the Rev. Dr. Stockton had sat through eight reels of film twice, tabulating just as carefully. The first time he saw the films he counted the number of scenes. The second time he counted the inserts, making one column for sub-titles and another for special inserts such as letters and signs. None of the films he saw was longer than one reel (1000'). When he had finished, the appalled doctor decided that D. W. Griffith, greatest of all the early motion picture directors, was a dangerous influence.

The average number of scenes per reel at that time, the Rev. Dr. Stockton felt, should be somewhere between 18 and 30. Mr. Griffith's crime, according to the doctor, consisted of having divided the one-reel Biograph film *The Sands Of Dee* into the incredible total of 68 scenes plus seven inserts.

Most of the other film-makers whose product was inspected had kept within modest limits. Only three had used more than 40 scenes; Vitagraph, a friendly competitor of Biograph, had lavished 46 scenes on a detective story. The rest of the field straggled down to as few as eleven scenes per reel. Mr. Griffith and *The Sands Of Dee* had won this dreadful contest hands down.

THE SANDS OF DEE (1912)

D. W. Griffith angered two critics by taking 68 scenes to tell his story in this one-reel Biograph film. This, they felt, was an excessive number. Mr. Griffith also gave Mae Marsh her first important role as the tragic Mary who, spurning her fisher lover, commits suicide over a visiting artist. The film was adapted from Charles Kingsley's poem. (Frame enlargement made from the original negative.)

To the doctor, Mr. Griffith and those other directors who sought to imitate him were "bitten by the lightning bug." Their releases, he charged, exhibited "lots of action, but no acting and no chance for any," and they all illustrated the "prevailing jumping-jack tendencies."

The results of his survey, with his comments, were printed in *Moving Picture World* for Aug. 10, 1912, under the department headed "The Photoplaywright." The editor of the department, heartily agreeing with the conclusions drawn from the compilation, added some comment of his own: ". . . A twenty scene drama is run up to fifty or sixty scenes, with an average time length of from fifteen to eighteen seconds each. Acting is not possible. Clarity of story is not possible. Unfolding of plot is not possible. There is a succession of eye-filling scenes, but no stories . . ."

Biograph had started all this, he claimed, and then he pointed his finger directly at the culprit: ". . . Now that three times the proper number of scenes are used to cover up the thinness of Director Griffith's on-the-flap-of-an-envelope stories, everybody's doing it, and strong, vital, gripping plots are shelved in favor of the short story with numerous shifts [of scene] . . ."

In view of this, the editor could only say to those aspiring scenario-writers he addressed in his columns: ". . . Write twenty to thirty [scenes] and let the director muss it up to suit himself . . ."[1].

Actually, what the good doctor and his editor were disturbed about was the system of assembling a film which prevails in the industry to this very day as the most dramatic method of conveying a story in terms of screen technique. In 1912 this was still in process of development. It

MAN'S LUST FOR GOLD (1912)

Mr. Griffith used 107 scenes in telling the story of this one-reeler. The claim jumper's discovery of gold (below) leads to his drawing a map which he entrusts to two youngsters at his death. Their search is interrupted by a thieving Mexican who steals their horses and wagon, and by attacking Indians. The climax, cutting back and forth among these characters to depict simultaneous action (the device was called the "cut-back"), increased the excitement, but also the number of scenes, arousing the two critics again. (Frame enlargement from the original negative).

is evident to us now that Mr. Griffith in such a film as *The Sands Of Dee* was concerned with breaking up his visuals so that he could fit them back together into a more flexible and powerful pattern during the editing. This was not evident to these two critics of the time.

These dissenters felt that the trouble could be traced originally to Mr. Griffith's injecting close-ups into his screen narratives. (A close-up requires a new, closer camera set-up and automatically makes a new "scene.") But two weeks later, the editor's violent reaction to Mr. Griffith's *Man's Lust For Gold* (released by Biograph in July, 1912) reveals another irritating source of scene multiplication. This time the difficulty was the "cut-back" at the climax of the action, where the scene keeps cutting back and forth between two different locations—or among three —to pick up action supposed to be occurring simultaneously.

Man's Lust For Gold, announced "The Photoplaywright" lividly, ". . . contains 107 scenes, twelve leaders [sub-titles], the title and censorship tag all on the thousand feet of film. There is one scene that runs four-fifths of a second according to three trials of a stop watch. We do not mention this as a pattern but as a horrible, a most horrible example.

". . . Stick to your twenty or thirty scenes in writing your play and when some producers either get fired or restored to sanity you'll be in line again . . . About the time they speed up to 150 scenes in seventeen minutes and forty five seconds [one reel] something will drop with a crash . . ."[2].

Thus we owe what must be some of the earliest statistics about scene composition of a motion picture to the labors and exasperations of the disapproving Dr. Stockton.

It should be stated that *Man's Lust For Gold* set a peculiar record. Two years later, the trade was still chuckling over the memory of this, "Biograph's 'now-you-see-it-now-you-don't' subject." Even then, in retrospect, it seemed as if Mr. Griffith had rather overdone it: ". . . [Did] you ever see Biograph's *Man's Lust For Gold*? The vaudeville comedian who said that 'Biograph whiskey' was the kind that made you see moving pictures must have evolved the joke after trying to tell what this story was about. That photoplay was a case of 'cut-up,' not 'cut-back' "[3].

By 1912 Mr. Griffith had accelerated the cut-back into "alternating flashes of simultaneous action in working up suspense"[4]. It was particularly handy for effecting a "last-minute rescue" of the hero or heroine – scenes of the one beating his way from a distance to the rescue of the other developed to a flash cutting that intensified the anxiety of the audience.

He eventually pushed to even greater lengths the technique of multiple scenes which had so alarmed the custodians of formula. In 1914, some time after he had left Biograph, he built his gigantic 12-reel *The Birth Of A Nation* out of 1375 individual scenes, and composed its frantic climax from two last-minute rescues performed consecutively. Dr. Stockton would have had a stroke.

But the doctor's counting machine would really have driven him mad had he tried to keep pace with Mr. Griffith's 13-reel *Intolerance* (1916), which blends four stories from separate centuries, all urging tolerance, into one narrative. These he advances concurrently in sections. By the time of second encounter for each, an enormous cut-back in the over-all scheme has been effected. This larger movement caps the working of the cut-back within three of the sections. At the end, three of the stories expire in tragedy, but not before their harrowing final moments have been inter-cut with the last-minute rescue in progress in the fourth, the final, the Modern Story, which emerges triumphant in Mr. Griffith's most dazzling display of prolonged cut-back.

Intolerance met some opposition on the grounds that it was difficult to follow. Alexander Woollcott as a critic on the *New York Times* was really reiterating the "lightning bug" and "jumping-jack" complaints when he wrote that *Intolerance* betrayed "grotesque incoherence of design."[5] But the film is recognized now as a masterwork of construction, though so advanced that it is still capable of bewildering an audience.

When did Mr. Griffith begin to develop the skill to fit together *Intolerance* which is so dependent on cut-back and last-minute rescue?

Certainly before 1912. Even before June, 1909, the date of his *The Lonely Villa*, which film histories and monographs state marked his introduction of the cut-back at the climax. In reality a series of at least five films, beginning nearly a year earlier, antedated *The Lonely Villa* with experiments along these lines.

THE MEDICINE BOTTLE (March, 1909)

This shows Mr. Griffith practicing the cut-back and the "last-minute rescue" in one of five early forgotten Biograph one-reelers of 1908-09. Little Alice is to administer Grandma's medicine at regular intervals, but Mother, going out to a party, carries away the wrong bottle by mistake, leaving a deadly poison on the table. (Consecutive frames from original negative show how the mistake was made clear to the audience through the use of a close-up).

THE MEDICINE BOTTLE (March, 1909)

Mother, at the party, discovers her error, and wildly tries to reach Little Alice on the phone.

But the telephone girls are gossiping about new hats, and so delay the call.

THE MEDICINE BOTTLE (March, 1909)

Another close-up shows Little Alice spilling the poison three times, in her effort to pour out what she thinks is a spoonful of medicine. (Consecutive frames from negative).

THE MEDICINE BOTTLE (March, 1909)

Finally the call gets through to Little Alice, saving Grandma from a fatal blunder. "And the audience heaves a sigh of relief," said a contemporary review.

Mr. Griffith did not invent the cut-back, as he later claimed[6], and as some even realized at the time[7], but he appears to have been the first to unite cut-back excitingly with last-minute rescue. This he did with such mastery that his name will be linked with them forever.

(The curious student will find clear descriptions of each of these devices employed in films before Mr. Griffith had begun to direct in the Summer of 1908 if he consults the synopses of Vitagraph's *A Tale Of A Shirt* and Pathe's *A Narrow Escape*. Both of these are reviewed in *The Moving Picture World* of Mar. 28, 1908, pages 270 and 272.)

Mr. Griffith's first use of cut-back in a climax appears to have been in *The Fatal Hour* (August, 1908), his seventh film. He was, even then, heading for a last-minute rescue. The story, a rip-roaring melodrama, finds the girl reporter who has tried to smash a white slave ring, a captive of the criminals, lashed to a bed-post facing a large pistol which is affixed to a clock so that when the clock strikes twelve, the pistol will explode and annihilate her. In the meantime, the hero sets out, frantically bent on rescue.

Says the Biograph synopsis: "This incident is shown in alternate scenes. There is the helpless girl, with the clock ticking its way towards her destruction, and out on the road is the carriage, tearing along at break-neck speed to the rescue, arriving just in time to get her safely out of range of the pistol as it goes off"[8].

"Alternate scenes" is a very literal way of describing the cut-back.

His next notable use of cut-back occurred in *The Cord Of Life* (January, 1909), another improbable thriller in which, nevertheless, Mr. Griffith had taken his usual pains to make his characters seem real. This film was about a baby dangling in a basket tied on a cord from an upstairs window, in a dire scheme of a vengeful Sicilian.

And the audience? They nearly suffocated with excitement until papa reached home and prevented mamma, all unawares, from opening the window and dashing the baby to death. In spite of this highly unlikely story, the impression of the film was so vivid that *five years later* one

writer recalled: ". . . many people in the audience . . . were leaning forward in their seats and making excited comments"[9]. Another reviewer overheard a woman in the audience who had just been delivered from the tortures of uncertainty of a Griffith cut-back melodrama speak out emphatically: "Thank God, they're saved!" She was not alone; the whole house was in an uproar of nervousness[10].

It is worthy of note that in these little melodramas Mr. Griffith was giving greater impetus to film technique than in the small group of his adaptations from the classics – *The Taming Of The Shrew, Resurrection, The Cricket On The Hearth,* etc. – on which exaggerated emphasis has been laid. In the adaptations, as one reviewer later confessed, there "was lacking . . . absorbing, intense, and sustained dramatic interest"[11]. This could scarcely be said of the cut-back melodramas which popped up at discreet intervals in the Biograph release schedule. (Obviously if they were kept rare, the audience would not tire of the pattern.) The titles were: *At The Altar* (February, 1909), *The Medicine Bottle* (March, 1909), *The Drive For A Life* (April, 1909) and *The Lonely Villa* (June, 1909), in all of which the threatened were rescued in the nick of time, as shown in alternate scenes.

In connection with *The Drive For A Life*, near the end of which the hero is speeding to his fiancee's house to save her from eating the poisoned candy, an interesting piece of information has come to light. A theater projectionist who had to hand-crank the projector was puzzled. Was he to follow two different tempos, alternately speeding up and slowing down? He wrote in: ". . . If run at normal speed while the auto ride is on, *The Drive For A Life* develops into a howling farce [i.e., because it is too slow], but if speeded up just as fast as you can run, it is excellent, but as the ride is cut three or four times in its length by other scenes, you have to slow down for each of them or the farce would be reversed . . ."[12]

Perhaps this irregular tempo of projection from an over-conscientious man in the booth, in place of the whirlwind rush Mr. Griffith must have intended for all scenes alike at the climax of the film, was responsible for one reviewer's comment: ". . . The thrilling suspense at the finish of this picture is too long drawn out to be fully effective . . . In alternate scenes we see [the hero] racing through the streets and we see the fiancee and her girl friends about to eat the candy. They have the sweets at their lips for an interminable length of time, so long that we are sure their arms will be paralyzed, while the young man in the automobile is crashing through toll gates, knocking over wagons and whirling around corners. Of course he arrives in time, as we knew he would, but either the chase is too long or the act of eating the candy is commenced too early in the picture"[13].

It would be a favor to Mr. Griffith's memory to correct the record by adding the titles of these long-overlooked examples of early cut-back and nick-of-time rescue. He began to train for his "lightning bug" tactics almost as soon as he started to direct. And the whole remarkable technique had to stand trial later, in a New York theater in the Summer of 1912, where the Rev. Dr. Stockton sat waiting with his pocket counting machine.

REFERENCES

1. *The Moving Picture World,* Aug. 10, 1912, p. 542.
2. Ibid., Aug. 24, 1912, p. 764.
3. *The Photoplay Author,* Springfield, Mass., January, 1914, p. 17, and May, 1914, p. 157.
4. *The New York Dramatic Mirror,* Jan. 31, 1912, p. 56.
5. Quoted in *The New York Dramatic Mirror,* Oct. 14, 1916, p. 19.
6. See his advertisement in *The New York Dramatic Mirror,* Nov. 26, 1913, p. 26, where he lists the cut-back (using the term "switchback") as "included in the innovations which he introduced."
7. *The Moving Picture World,* June 20, 1914, p. 1682: "Mr. Griffith was the first to develop the cut back . . . In speaking of him as the inventor . . . it is merely intended to convey that he was the first to employ it as a device for delaying the climax or heightening the suspense through contrast."
8. Ibid., Aug. 22, 1908, p. 142.
9. *The Photoplay Author,* August, 1914, p. 48.
10. *The Moving Picture World,* Mar. 12, 1910, p. 372.
11. *The New York Dramatic Mirror,* Jan. 31, 1912, p. 56.
12. *The Moving Picture World,* Aug. 21, 1909, p. 249.
13. *The New York Dramatic Mirror,* May 1, 1909, p. 42.

"Short Run Color" Reproduction

Illustrated with photographs by Pirkle Jones

THOUSANDS OF PROFESSIONAL PHOTOGRAPHERS consider the photograph proper but a step in a process that culminates in the reproduced image. As these men know, to be able to predict at the time of taking the picture a reasonable facsimile of what will appear in black and white is a necessity to their craftsmanship. And thousands of photographers in the news, picture magazine, free-lance, and advertising fields do so regularly. They would all like to be able to do the same in color.

Color reproduction has been too expensive for all but the lush accounts to carry, and consequently only a mere handful of top flight photographers, and these mainly in advertising, have ever seen enough of their work reproduced in color to learn to think in terms of color while making their pictures. The large majority work "half blind;" either amazed that their transparencies reproduce at all or dismayed at the unpredictable results.

Various people who are responsible for experimentation in color reproduction processes are not unaware of this ideal of the photographer. And while they seem to have taken lower costs as their goal, they have also produced processes that begin to make it possible for the average and the run of the mill photographers to think in terms of color reproduction. "Short run color" processes, as they are sometimes called in the trade, are now, in a few localities, commercially available.

The short run color processes are limited to quantities in the neighborhood of 5,000 copies; they are planned to use only three colors; but a fourth color "black" can be used to enrich the reproductions. This has been done in the accompanying illustrations which were made by the Royal Blue Print Company in San Francisco.

This company, and others who are making short run color available to their clients, has found that it has to do more than be able to print from client-supplied transparencies. In order to serve their clients to the best advantage, they have had to set up a service that includes making the original transparencies as well. This means actually operating a picture taking service. And the department, or company, is as much a commercial photographic organization as it is a printing plant. Obviously if superior work is to be done, a well-trained, competent, and if possible, brilliant, photographer must be either on the staff or commissioned on occasion.

Mr. Pirkle Jones, of San Francisco, was commissioned by the Royal Blue Print Company to make color pictures of the construction of a new plant that the Betchel company is building for the Tidewater Associated Oil Company.

In the color reproductions by Pirkle Jones we are concerned with something more than a record of construction. While they have been selected from an exhibition that traces the construction of an oil refinery, it is the sense of power found in the pictures (the sense of magnificence that is often observed and felt in huge construction) that guided the choice.

The Jones interpretation of construction, because the interpretation is not apparent, reminds one of the way Alfred Stieglitz liked to think of his work. There is the blunt honesty, the absolute clarity that conceals interpretation. At first glance they seem to be brute records little different than a commercial shot for ordinary record purposes. But compare them with such commercial work. And as Stieglitz used to say, "What I really want is to make photographs that, when you first look at them do not look any different from any 'Third Avenue' photographs, but, when you place them beside the 'Third Avenue' photographs, then you will see the difference."

This deceptive clarity is characteristic of Jones' photography; they are so straightforward that interpretation seems to be the wrong word to use to describe them or his work. From these four pictures we realize that he has seen the power, observed the magnitude, felt the sweep of his subject matter and brought these qualities to us through his photographs.

These color reproductions are by the courtesy of the Royal Blue Print Company of San Francisco.

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Communication

by Arthur Rothstein

Excerpts from a talk given by photographer Rothstein at the November 1956 opening of his exhibit at the Dryden Gallery.

In describing my work, the terms "documentary" and "photojournalism" have been used. But I like to think of my efforts as primarily a form of communication. The camera is the means by which I convey a meaning, a mood, or a sensation to others. The fact that many of these impressions, in the form of visual images, get printed in LOOK magazine, means that I have a great audience of twenty million people for whom I am an observer of contemporary civilization.

I may, at times, comment photographically about a domestic problem; visually explain the foreign scene; or perhaps reveal a subject in a new, beautiful or dramatic manner. Whatever the assignment, I try to approach each one with objectivity and enthusiasm.

The kind of photography I do, as a photojournalist, came into being as a result of many influences in the history of this medium.

It was only 117 years ago that Daguerre made his public announcement of a process by which anybody with some skill and practice could photograph a scene or person. The immediate effect of this was to put the portrait painter almost out of business and photography for the next 16 years was devoted to recording likenesses of people.

In 1855, Roger Fenton went off to photograph the Crimean War and for the first time photographic coverage of history-making events was successful. This was followed by the famous battlefield documents of Brady during our own Civil War, which have influenced war photographers ever since.

Then along came Alfred Stieglitz who, in 1896, started the great movement of pictorial photography with its salons, its controlled processes, and its great fight for artistic recognition. This was achieved, but Stieglitz went further and there was little similarity between the photographs he made as a pictorialist in 1892 and those made in 1932, except as an indication of his search for the truth and the ultimate in photographic expression. The photo-secession of 1902 started by Stieglitz emphasized the virtues of photography as an art form and removed it from the role of imitating other art. This rebellion against imitating a painter was pushed even further by Edward Steichen and Edward Weston in the 1920's.

It was during this period that the documentary photographer made a substantial contribution. The idea content of the photograph, coupled with fine technique, and artistic perception, resulted in pictures that had a profound effect on the observer.

Prime Minister Churchill and President Roosevelt at the Quebec Conference in 1943.

The pioneers in this approach were Jacob Riis and Lewis Hine and during the 1930's the FSA group, of which I was a member, produced thousands of photographs which not only served a useful, humanitarian purpose, but also synthesized the best trends in modern photography.

It was about this time, too, that newspapers

began placing greater emphasis on photographic coverage, built up larger staffs of photographers and catered to the growing visual-mindedness of the public by printing more and better photographs.

The arrival of the picture magazines in 1937 created an appreciative mass audience for fine photography. And at the same time the picture story was developed as an elaborate expression of ideas and emotions.

I firmly believe that photography today owes much of its stature to the professional photojournalists who comprise the staffs of these newspapers and magazines. It is only in this growing field of photojournalism that we find a combination of the best elements in the history of photography for these past years, as well as the incentive toward experimentation and creative thinking designed to enlarge the photographic horizon.

We who are making editorial photographs daily are inspired from the days of Daguerre to produce the faithful likeness, from the period of Fenton and Brady we find inspiration for photographs which bear witness. Pictorialism has made us aware of the potentialities for beauty in our environment. The approach of the realistic photographers has made us conscious of good technique, honesty and integrity. The documentary photographer made us think of content, ideas and emotion, the relationship of people to their environment.

I must admit, however, that I was not conscious of these influences when I began my photographic career. I started out being fascinated by the mechanics of photography. The making of a likeness, exposure, development, printing were all satisfying in themselves. It was incidental that the photographs might serve a useful purpose. I progressed to an appreciation of aesthetics. Here I was devoted to composition, balance and design. At this stage, I was a pictorialist and entered my prints in exhibitions and salons all over the world. I was more interested in producing prints that were accepted and hung than in doing anything original. Most of my work of that period was imitative. They were clichés. But as long as that was what the salons wanted, they were accepted, exhibited and I was pleased.

The next stage in my development as a photographer was an extreme departure. I started doing documentary photography for the Farm Security Administration. I became conscious of a new concept. Photographs could be used to communicate ideas and emotions. Here honesty and truthfulness in technique were important to make the pictures convincing. But techniques, composition, design and print quality were secondary to the statement the photograph made. The selection of viewpoint, the moment of exposure, the total effect on the observer were the more important.

At this point I became aware, too, of the satisfaction of working with a functional, artistic medium. I discovered that all great art has been functional and has served some purpose other than the gratification of the artist. I wanted to make photographs that had universal appeal, that were seen by a large audience; photographs that informed this audience, entertained them, or provoked them.

The picture magazine was the answer, and I became a magazine photographer. Now I have my audience, about 20 million people. I can use my camera, any technique, any idea, go anywhere in the world.

In the course of my 22 years of professional photography, I have produced thousands of photographs for the Farm Security Administration, hundreds for the OWI, the US Army Signal Corps, and United Nations and tens of thousands for LOOK Magazine.

During this period I have also been asked many questions about photographs and my technique.

Dust Storm in Oklahoma, 1936.

Probably the most frequent question is, "How did you become a photographer?" Well, simply enough, my uncle gave me a Brownie for my twelfth birthday, and like 45 million others, I became a camera fan. It was only a matter of time to progress to developing, printing, camera clubs and finally photography for profit as well as fun.

The next question I am often asked is: "What is your greatest picture?" This one is hard to answer. However, I can show you my most widely reproduced picture. This one, taken in the panhandle of Oklahoma, in 1936, during the days of the black blizzards, was distributed all over the world by the news photo syndicates. It showed, dramatically, the plight of the farmer, who was plagued by depression, drought and dust. It contributed to the passage of our effective soil conservation laws and helped arouse the people of this country to the waste of our natural resources.

South Dakota Badlands, 1936.

I can also show you my most controversial photograph. This picture of a bleached skull on the alkali flats of South Dakota's Badlands, was made in the spring of 1936. Later that summer, was selected from the government files and circulated by a news photo syndicate, with a different caption, to illustrate the severe drought in the Great Plains area. I was accused of producing a faked picture and the photograph became an issue in the presidential campaign of that year.

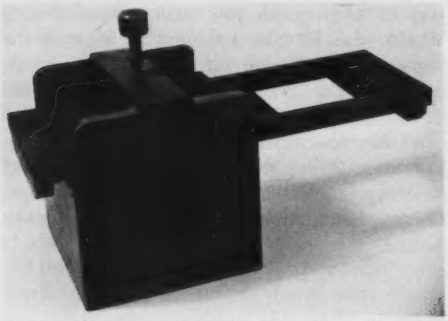
By far, the most difficult assignment I had was to photograph the Burma Road during World War II. This strategic route, over the highest mountains in the world, was our entrance to the back door of Japanese occupied China. As commander of convoy #129, I travelled for one month from Calcutta, India to Kunming, China, through mountain snows and steaming jungles, annoyed by Japanese troops, Chinese bandits and the Naga headhunters of Assam.

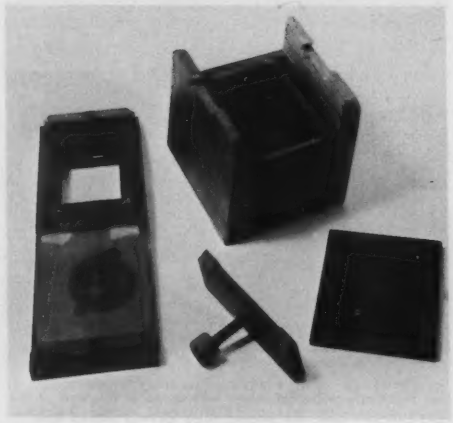
This relatively peaceful scene was made at the end of the long journey over the Burma Road during World War II.

The most famous people I photographed were Roosevelt and Churchill, at the Quebec conference of 1943. It was not easy to get them together as shown in this photograph because Roosevelt liked to work late at night and sleep late in the morning, while Churchill preferred to rise early and go to bed early.

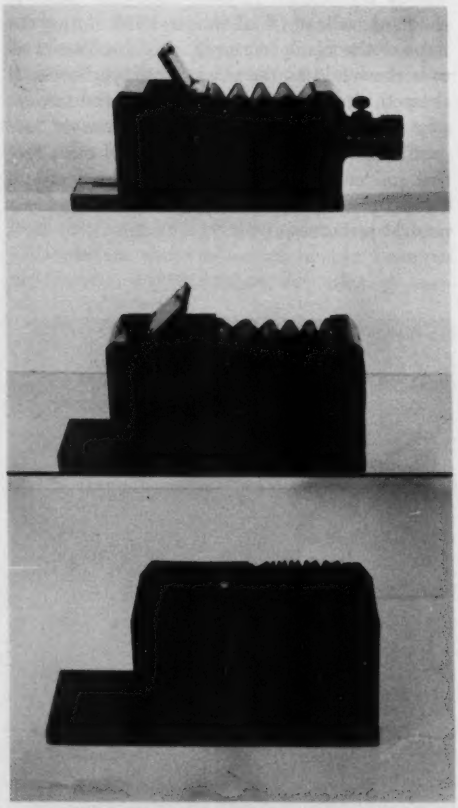
Although it is always interesting to get the photographer's point of view, I believe that pictures actually require little explanation. The photographic image speaks directly to the mind and transcends the barriers of language and nationality.

President Eisenhower has said, "The camera reporter makes a major contribution toward greater understanding among the people of all nations. Pictorial reportage is the most universal of all languages. It is an indispensible tool of freedom in these days when so many people are oppressed and personal freedom is restricted in many parts of the world."





Coating boxes were always used in pairs by American daguerreotypists. The smaller box contained "quickstuff" – a bromine or chlorine or mixture of the two. The plate was fumed first with iodine and then with quickstuff which acted as a hypersensitizer.



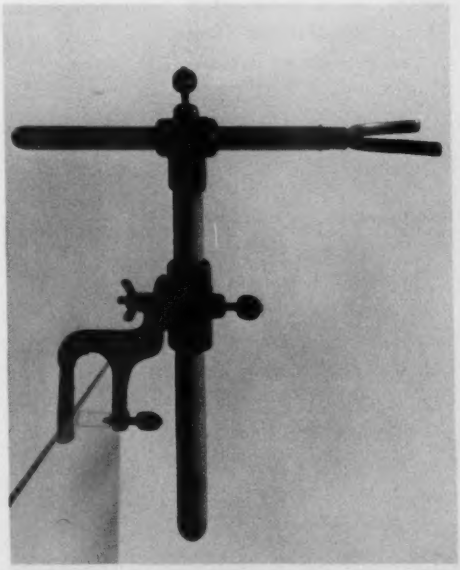
COATING BOX, American for sensitizing quarter-size daguerreotype plates (8 x 10.8 cm.). Inside the wooden box is a glass jar, to contain iodine particles used to sensitize the plate. The slide contains at one end a ground glass which fits tightly over the glass jar to keep the iodine from evaporating when not in use. The other end contains a recessed aperture, in which the polished plate is placed face down. To sensitize the plate, the operator simply slid the plate into position over the glass jar. H. 19.6 cm. (excluding wooden screw), W. 14 cm., L. of box, 14.5 cm., of slide, 34.5 cm. Boyer coll. (Negs. 3506, 3498)

COATING BOX, American, for sensitizing quarter-size daguerreotype plates (8 x 10.8 cm.) Identical to the coating box described above, except that the height is only 10.7 cm. Boyer coll.

CAMERAS, AMERICAN, for quarter-plate daguerreotypes (8 x 10.8 cm.) Bellows type. Fronts rigid, backs sliding. Camera at top, the best preserved of the three, bears stamped on the bed "Palmer & Longkind" and has a brass mounted doublet lens, focal length 15 cm., equivalent effective aperture approximately

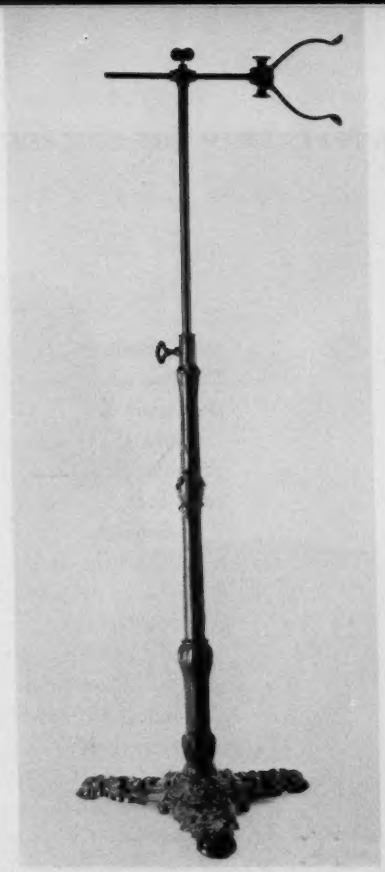
f/8; engraved on barrel "C C Harrison/No. 2685/New York." Dimensions L. (excl. lens), 41.5 cm., W. 15.2 cm., H. 17.0 cm.

The other cameras are almost identical in size. The bellows camera came into use in America in the 1850s. William H. Lewis and Henry T. Lewis of New York patented a bellows camera in 1851 (v.s.p. 8513). They stated that it was "fitted with a bellows, making it very compact, which is a very essential requisite, particularly for packing in transit or for traveling operators." This type of camera appears to be the first to be mass-produced with bellows.



HEAD REST, American, for portrait taking. Wood and cast iron. H. 40.5 cm., W. 36 cm. Boyer coll. (Neg. 3496)

The traveling daguerreotypist could not take portraits without a head rest. This portable model screwed onto the back of a chair. Snelling said that this model, which he illustrates, is "much the best for travelling artists, as it can be taken apart, into several pieces, and closely packed . . ."



HEAD REST, American, for portrait taking. Cast iron. Adjustable head support on rod which slides vertically in base. H. collapsed, 90cm., extended, 171cm. W. of base, 44cm. Boyer coll. (Neg. 3625)

For regular use in the portrait gallery, daguerreotypists preferred a heavy stand, which would insure immobility of the model. This "Union Head Rest" is described and illustrated in *The Photographic Art Journal*, June, 1852. The editor, H. H. Snelling, praised the manufacturer, J. M. Allen, for "this chaste and beautiful article . . . unsurpassed by anything of the kind in this country."

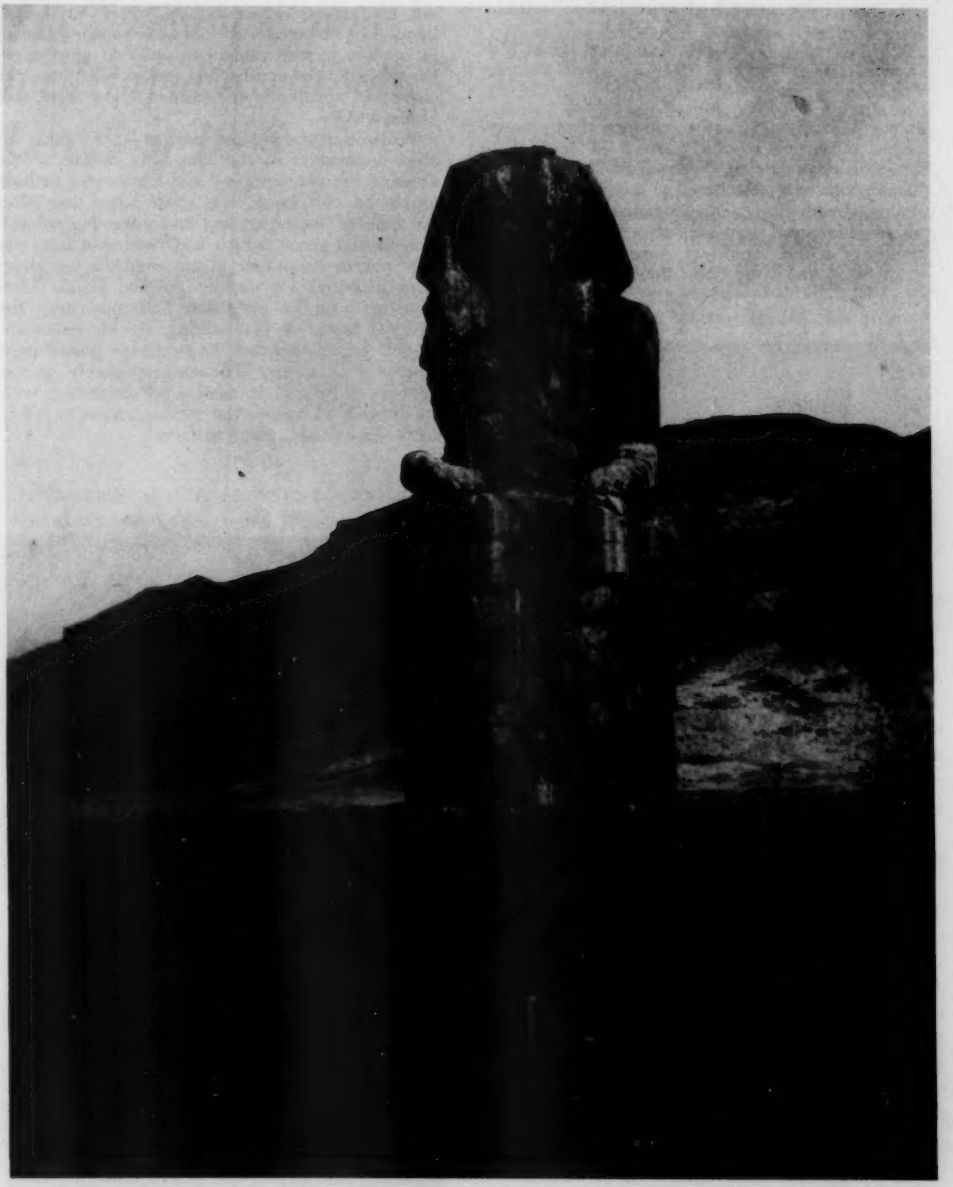
Of all the paraphernalia of the 19th century photographer, head rests are the rarest – simply because the heavy metal stands were useful for other purposes when head rests were no longer needed because of the introduction of more sensitive materials. Eastman House possesses two other head rests of the same period, including the popular "Jenny Lind" model illustrated in H. H. Snelling, *A Dictionary of the Photographic Art*, New York, 1854, p. 94.

Some twenty-five hundred years had eroded Amenopht III's Colossus when Maxime Du Camp photographed it a hundred years ago.

Marks of the annual innundation of the Nile appear on the base of the Colossus; wind and sand and the trembling earth have recarved the rest of it.

Probably the photograph evokes a nostalgia for what the ruin must have been. Most of us probably try to imagine what it must have looked like when it was built and are sad at the defacements time has caused. The Egyptians may have had another idea about their once proud statue. Time conscious, eternity bound, they might have set out to make a statue whose disintegration might measure time. They may have thought of it as a kind of candle that measures time while burning. To do so, then, the original appearance would have to be proud, magnificent, resembling a human being as much as possible. So that the eyes of generations to come, and who would only see some aspect of the disintegration, might, if they used their imaginations, compare what they saw with what the statue must have been, and thereby be made aware of the magnificence of time itself.

Maxime Du Camp photographed it a hundred years ago, others have since. If we could piece together, in super slow motion, photographs made twenty five years apart since it was built we would be able to reconstruct, and make visible, this same sculpture of the passage of time.



COLOSSUS OF AMENOPHT III by Maxime Du Camp, 1852

From Plate 56 of an edition of Du Camp's photographs of Egypt, Nubia, Syria and Palestine. Printed by Blanquart-Evrard, 1852.

FIRE!

1901-02. Produced in Great Britain by James Williamson, Hove, Brighton. 280 feet, 35mm positive. Duplicate negative.

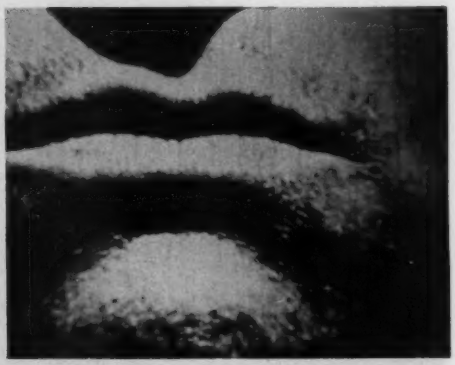
James Williamson, an active and important pioneer, began producing motion pictures in 1897. Like Edwin Porter's *Life Of An American Fireman*, Williamson's picture contributed to the development of screen narrative by connecting various fire-run and rescue scenes and presenting them in a logical continuity of action, some real, some staged. Original prints were tinted red throughout the flame scenes.

A BIG SWALLOW

1901-02. Produced in Great Britain by James Williamson, Hove, Brighton. 26 feet, 16mm positive.

Williamson's trick film was one of the most celebrated of its day. It shows a reluctant camera subject who approaches nearer and nearer until his mouth fills the entire screen, blacking it out as he appears to swallow the photographer and his camera. He then retreats, munching up his victim. Williamson constructed a special bellows extension for his motion picture camera in order to photograph the subject as he approached and receded from the camera in apparently the earliest follow-focus shot of film history.

Williamson also pointed out that he had made another innovation in the film. The middle scene, showing the photographer and his camera as both topple into blackness, was made some time after the shots of the advancing and retreating subject. This second scene, which had been shot last, was only put in its proper place when the negatives were prepared for making positive prints. Thus Williamson at this early date had come upon the essential factor of film editing. By his cinematographic implication that the swallower passed right through the screen, Williamson probably gained for himself priority in aesthetical dispensing with the concept of the motion picture screen as solely a two-dimensional plane surface.



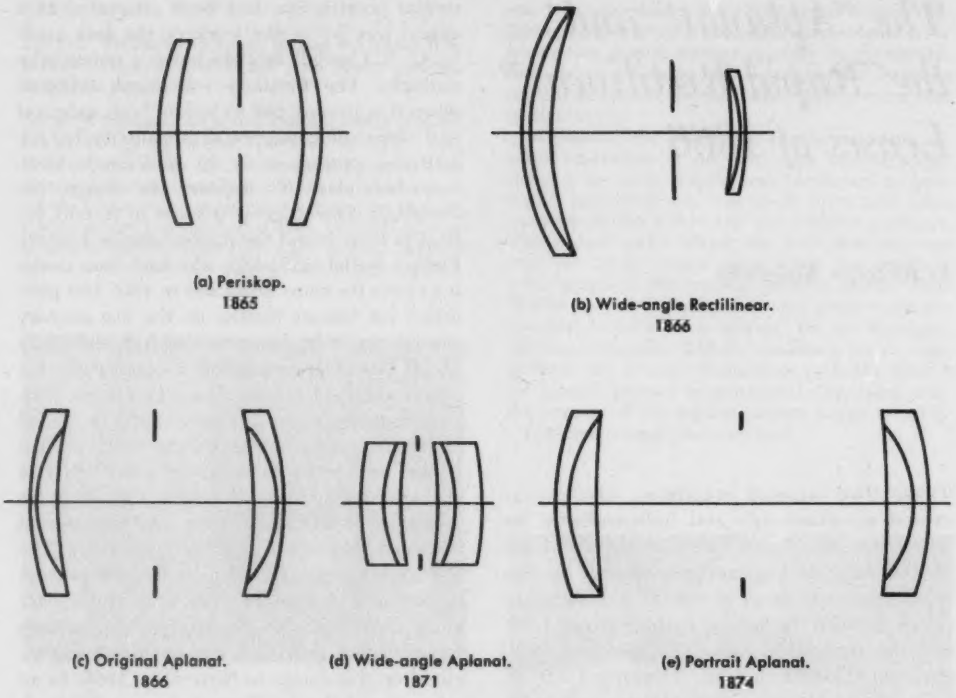
The "Aplanat" and the "Rapid Rectilinear" Lenses of 1866

by Rudolph Kingslake

THESE TWO ALMOST IDENTICAL LENSES, invented simultaneously and independently by Dr. H. Adolph Steinheil in Germany and John H. Dallmeyer in England, represent by far the most important development in photographic optics between the Petzval Portrait lens of 1839 and the introduction of the Anastigmat construction in 1890. Indeed, following 1866 almost all the previous lenses disappeared from the market, and for over 50 years the Aplanat type was universally adopted in cameras of the middle-price range. It was the answer to the photographer's dream of a reasonably simple construction which would cover a field of $\pm 25°$ at an aperture between $f/6$ and $f/8$, for use as a universal lens. It did not replace the Portrait lens, although both Steinheil and Dallmeyer tried to increase the aperture to $f/4$ or higher, and it did not replace the very low-priced landscape lens except when distortion correction was important. The effect of the introduction of the Aplanat lens construction was particularly noticeable in England where the Ross Doublet, the Dallmeyer Triplet, and the American Globe lens had been previously in common use by photographers.

The "Aplanat" lens had its origin in the Periskop (Fig. a), patented in 1865 (B.P. 2937) by Carl August Steinheil (1801-1870) and his son Dr. Hugo Adolph Steinheil (1832-1893). The Periskop lens comprised two indentical fairly flat simple crown-glass menisci symmetrically arranged about a central stop, and it was claimed to cover a field of $\pm$ 45° at $f/10$. A similar construction had been attempted in a casual way by earlier workers, the lens made by C. S. Cundell in 1844 being a noteworthy example. The Periskop was much admired when it appeared, but its lack of both spherical and chromatic correction drastically limited the aperture, putting it in the wide-angle landscape-lens class. To improve the design, the Steinheils showed great wisdom in turning for help to their friend the mathematician Ludwig Philipp Seidel (1821-96), who had been studying optics for many years and in 1856 had published his famous treatise on the five primary aberrations of lens systems. With Seidel's help H. A. Steinheil succeeded in correcting the spherical and chromatic aberrations of the Periskop design by inserting very strong cemented interfaces in both components (Fig. c), the glasses used being dense flint of index 1.616 for the outside elements and light flint of index 1.583 for the inside elements. The lens, as first made, covered a field of about $\pm 22°$ at $f/8$. The first samples were sent to the Belgian photographer and author D. van Monckhoven for study, and they were also exhibited at the Paris Exposition in 1867. A Bavarian patent was secured on this design in November, 1866. In an interesting letter to Thomas Ross in England, dated March 2, 1867, Dr. Steinheil asked Ross if he would be willing to take out an English patent and undertake the sale of the lens in English-speaking countries, but this proposal met with no success as J. H. Dallmeyer had already commenced manufacture of a virtually identical lens known as the "Rapid Rectilinear."

It is not clear whence Dallmeyer derived the idea of the Rectilinear lens, but it might have been from Thomas Grubb's Aplanatic Landscape lens (see *Image*, March 1955). After all, this lens of Grubb's was corrected (almost!) for spherical and chromatic aberrations, and it could be given a flat field by correctly locating the stop, but it then suffered from excessive coma and distortion. However, R. H. Bow and T. Sutton had shown in 1861 that if any two identical lenses are arranged symmetrically about a central stop, the coma and distortion will automatically disappear. By this simple and almost obvious device Grubb could have invented the Rapid Rectilinear himself five years before either Steinheil or Dallmeyer. However, he missed this opportunity, and it was left to John Henry Dallmeyer (1830-1883)



(a) Periskop.
1865

(b) Wide-angle Rectilinear.
1866

(c) Original Aplanat.
1866

(d) Wide-angle Aplanat.
1871

(e) Portrait Aplanat.
1874

to make the experiment. Dallmeyer, moreover, realized from Bow and Sutton's theory that a *hemisymmetrical* lens (i.e. one in which the rear half is a scaled-down version of the front half) would also be practically free from coma and distortion, and it was this form which he patented in September 1866 and sold as the "Wide-Angle Rectilinear" covering ± 30° at *f*/15 (Fig. b). (Actually the rear component was flattened somewhat, presumably to improve the coma correction.) Within a year or two Dallmeyer adopted the fully symmetrical construction in his "Rapid Rectilinear" lens, having an aperture of almost *f*/6. For his two glass types, Dallmeyer adopted a common crown and a medium flint, of lower index than the two flint glasses used by Steinheil.

Of course, the inevitable controversy arose as to who first invented this new lens; it eventually appeared that Steinheil could claim a slight priority, having published a description of the lens in an obscure German "Nachrichten." Actually they were genuine simultaneous inventions, of a kind that frequently occurs when many people are working in the same field in different places.

During the years following the introduction of the Aplanat, Dr. H. A. Steinheil found that it was an extremely versatile type. By selecting different types of glass, he was able to vary the construction and so design several small, strongly-curved "Wide-Angle Aplanats" (Fig. d) covering a wide angle at low aperture, and also two narrow-field Aplanats of high aperture for portraiture. The "Portrait Aplanat" of 1874 had an aperture of *f*/3.5 (Fig. e), the rear component being not quite identical with the front. In the following year he managed to raise the aperture to *f*/3 by making the rear component actually biconvex instead of meniscus; however, this lens could scarcely be regarded as an "Aplanat" in the strictest sense of the term.

Every lens manufacturer soon began to make lenses of the Aplanat type, and some of the trade names employed to identify them were so remarkable that a partial list may be of interest.

The simple terms Aplanat and Rectilinear were also used extensively by many manufacturers.

BECK: Biplanat, Symmetrical
BERTHIOT: Périgraphique
BUSCH: Metaplanat, Rektiplanat
DARLOT: Hémisphérique Rapide
DEROGY: Orthopériscope
FLEURY-HERMAGIS: Eidoscope, Aplanétique Panoramique
GOERZ: Lynkeioskop, Paraplanat, Rektiplanat
GUNDLACH: Hyperion
HARTNACK: Pantoskop
JARRET: Panoramique
LAACK: Polynar
LANCASTER: Rectigraph
MEYER: Aristoplanat, Aristoskop
PERKEN: Grossar
PRAZMOWSKI: Panoramique
RIETZSCHEL: Apostigmat
RODENSTOCK: Aplanoskop, Rekti-aplanat
ROSS: Symmetrical
ROUSSEL: Rectiligne
SCHULZE: Orthoskop, Sphäriskop
TALBOT: Lamprodynast
VOIGTLANDER: Euryskop
WAECHTER: Barytaplanat, Leukograph
WATSON: Premier
WOLLENSAK: Versar, Voltas
WRAY: Platystigmat

The vogue of the Rectilinear lens in small hand-cameras continued until about 1920. It was then found that a simple 3-element air-spaced triplet lens was not only cheaper to make than the Rectilinear but was also a true anastigmat. From that time the Rapid Rectilinear construction ceased to be used, and the lens disappeared completely from the market.

BOOK REVIEW

BRETT WESTON: PHOTOGRAPHS, by Merle Armitage. New York, E. Weyhe, 1956. 102 pp, 28 illust. $15.00.

Twenty eight of Brett Weston's finest photographs are reproduced in this handsome and almost extravagant book. The format is large and easily accommodates pictures the same size as the original contact prints (8 x 10 inches).

A cross section of twenty years of work is included, from the *Ford Trimotor Plane, 1935*, which was one of his earliest successes to several done in 1956. Many of the latter are reproduced for the first time. Two short, appreciative essays on the photographer appear by Merle Armitage, the designer of the book.

Brett Weston is an artist-photographer, as distinct from a photoreporter or a commercial photographer; and he is so by choice and purpose. I do not wish to use this term "artist-photographer" as a measure, but rather as a definition of a profession. It is necessary to make such a distinction because any attempt to evaluate an artist-photographer according to the standards and purposes of, for instance, a photoreporter can only lead to confusion. Brett Weston works in one of the oldest traditions in photography: he uses a large view camera and makes contact prints directly from the negative. (He jokingly calls his 5 x 7 camera his "miniature.") His images combine informational value plus esthetic qualities. Pictures made in this tradition often seem like factual reporting – until an example is placed beside the ordinary reportage of a city-scape or a landscape or a portrait. When compared, the esthetic overtones of Weston's photographs are obvious.

In the past three or four years Mr. Weston has apparently poked his camera closer to objects than formerly. He has brought it so close that he breaks, for most of us, the barrier of the commonplace. His recent photographs of such things as a few square inches of disintegrating laminated glass, for instance, or air bubbles in ice suggest a world we have never before seen.

Most of this man's photographs show a great love of the objects to be seen in his pictures; the sand dunes are sensuous, the long distances seductive, the plant leaves tactile. In the recent work there seems to be a shift of attention; the shift seems to be from a love of the object photographed to what a photograph can suggest in its own right. This is, perhaps, a subtle distinction, but an important one to an artist-photographer. This change of attention is a noteworthy one because, if true, it indicates another step towards his exclusive concern with photography as an art medium.

Ultimately, that concern is his problem; for us, these strong, powerful, fully-realized images are twenty-eight invitations to experience beauty.

MINOR WHITE

GEORGE EASTMAN HOUSE ASSOCIATES CALENDAR

Exhibitions in the Dryden Gallery

to February 11, 1957

PHOTOGRAPHS by Wynn Bullock and Edward Weston

February 15 to April 1

THE NAVAHOS by Laura Gilpin
Interpretive documents of a famous tribe of American Indians

Exhibitions in the Study Room

March 1957

PHOTOGRAPHS by Dody Warren of Los Angeles

April 1957

PHOTOGRAPHS by Dr. Albert Freed of Brooklyn

Travelogues

March 11, 1957

BENEATH THE SEA—UNDERWATER PHOTOGRAPHER by Peter Stackpole, of Life magazine

April 8, 1957

THE CARIBBEAN by Fritz Henle

Associates Film Program—Dryden Theater

March 16

CLAUDIA—with Dorothy Maguire

April 21

THE GREEN GODDESS with George Arliss, Alice Joyce

THE DRYDEN THEATER OF THE GEORGE EASTMAN HOUSE